

WHAT IS CLAIMED IS:

- 1 1. A method comprising:
2 providing a debugger suitable for a unit under test, wherein the unit under test
3 includes a program under test;
4 causing the debugger to be loaded into the unit under test;
5 sending a plurality of test commands to the unit under test according to a test
6 script; and
7 activating the debugger when a watched event occurs during execution of the
8 program under test.

- 1 2. The method of claim 1 further comprising:
2 directing a debugger command to the debugger; and
3 recording information provided by the debugger according to the debugger
4 command.

- 1 3. The method of claim 1 further comprising:
2 pausing execution of the program under test; and
3 allowing a user to control the debugger.

- 1 4. The method of claim 1 further comprising:
2 invoking the debugger while specifying the program under test as a target of
3 the debugger.

- 1 5. The method of claim 1 further comprising:
2 instructing the debugger to associate itself with a process executing on the unit
3 under test, wherein the process corresponds to the program under test.

- 1 6. The method of claim 1 further comprising:
2 sending a command to the debugger, wherein the command performs at least
3 one of :
4 setting a breakpoint in the program under test;
5 setting a watchpoint in the program under test;
6 setting a catchpoint in the program under test;
7 setting a tracepoint in the program under test;

1 7. The method of claim 1 wherein the watched event includes at least one of a
2 processor exception, a program under test error, reaching a breakpoint in the program
3 under test; reaching a watchpoint in the program under test; reaching a catchpoint in
4 the program under test; and reaching a tracepoint in the program under test.

1 8. The method of claim 1 further comprising:
2 selecting a platform-specific debugger corresponding to a processor in the unit
3 under test; and
4 loading the platform-specific debugger into the unit under test.

1 9. The method of claim 8 further comprising:
2 loading, into the unit under test, a symbol file corresponding to the program
3 under test.

1 10. A system comprising:
2 a memory;
3 a processor coupled to the memory; and
4 a debugger agent, wherein at least a portion of the debugger agent is encoded
5 as instructions stored in the memory and executable on the processor,
6 and wherein the debugger agent is configured to:
7 select a debugger program suitable for a unit under test, wherein the
8 unit under test includes a program under test;
9 cause the debugger program to be loaded into the unit under test;
10 send a plurality of test commands to the unit under test according to a
11 test script; and
12 activate the debugger program when a watched event occurs during
13 execution of the program under test.

1 11. The system of claim 10 further comprising at least one debugger program
2 stored in at least one of the memory and a storage device accessible by the processor.

1 12. The system of claim 10 further comprising at least one symbol file stored
2 in at least one of the memory and a storage device accessible by the processor.

1 13. The system of claim 10 further comprising:
2 a test script handler, wherein at least a portion of the test script handler is
3 encoded as instructions stored in the memory and executable on the
4 processor.

1 14. The system of claim 13 wherein the test script handler is further
2 configured to send the plurality of test commands to the debugger agent.

1 15. The system of claim 10 further comprising:
2 a second memory;
3 a second processor coupled to the second memory; and
4 a test script handler, wherein at least a portion of the test script handler is
5 encoded as instructions stored in the second memory and executable on
6 the second processor.

1 16. The system of claim 15 wherein the test script handler is further
2 configured to send the plurality of test commands to the debugger agent.

1 17. The system of claim 10 wherein the debugger agent is further configured
2 to:
3 direct a debugger program command to the debugger program; and
4 record information provided by the debugger program according to the
5 debugger command.

1 18. The system of claim 10 wherein the debugger agent is further configured
2 to:
3 suspend execution of the program under test; and
4 allow a user to control the debugger program.

1 19. The system of claim 10 wherein the debugger agent is further configured
2 to:
3 invoke the debugger program while specifying the program under test as a
4 target of the debugger program.

1 20. The system of claim 10 wherein the debugger agent is further configured
2 to:
3 command the debugger program to associate itself with a process executing on
4 the unit under test, wherein the process corresponds to the program
5 under test.

1 21. The system of claim 10 wherein the debugger agent is further configured
2 to:
3 send a command to the debugger program, wherein the command performs at
4 least one of :
5 setting a breakpoint in the program under test;
6 setting a watchpoint in the program under test;
7 setting a catchpoint in the program under test;
8 setting a tracepoint in the program under test;

1 22. The system of claim 10 wherein the watched event includes at least one of
2 a processor exception, a program under test error, reaching a breakpoint in the
3 program under test; reaching a watchpoint in the program under test; reaching a
4 catchpoint in the program under test; and reaching a tracepoint in the program under
5 test.

1 23. The system of claim 10 wherein the debugger agent is further configured
2 to:
3 select a platform-specific debugger program corresponding to a processor in
4 the unit under test; and
5 load the platform-specific debugger program into the unit under test.

1 24. The system of claim 23 wherein the debugger agent is further configured
2 to:
3 load, into the unit under test, a symbol file corresponding to the program under
4 test.

1 25. A computer readable medium comprising program instructions executable
2 on a processor, the computer readable medium being at least one of an electronic
3 storage medium, a magnetic storage medium, an optical storage medium, and a

4 communications medium conveying signals encoding the instructions, wherein the
5 program instructions are operable to implement each of:
6 providing a debugger suitable for a unit under test, wherein the unit under test
7 includes a program under test;
8 causing the debugger to be loaded into the unit under test;
9 sending a plurality of test commands to the unit under test according to a test
10 script; and
11 activating the debugger when a watched event occurs during execution of the
12 program under test.

1 26. The computer readable medium of claim 25 further comprising program
2 instructions operable to implement each of:
3 directing a debugger command to the debugger; and
4 recording information provided by the debugger according to the debugger
5 command.

1 27. The computer readable medium of claim 25 further comprising program
2 instructions operable to implement each of:
3 pausing execution of the program under test; and
4 allowing a user to control the debugger.

1 28. The computer readable medium of claim 25 further comprising program
2 instructions operable to implement:
3 invoking the debugger while specifying the program under test as a target of
4 the debugger.

1 29. The computer readable medium of claim 25 further comprising program
2 instructions operable to implement:
3 instructing the debugger to associate itself with a process executing on the unit
4 under test, wherein the process corresponds to the program under test.

1 30. The computer readable medium of claim 25 further comprising program
2 instructions operable to implement:
3 sending a command to the debugger, wherein the command performs at least
4 one of :

5 setting a breakpoint in the program under test;
6 setting a watchpoint in the program under test;
7 setting a catchpoint in the program under test;
8 setting a tracepoint in the program under test;

1 31. The computer readable medium of claim 25 wherein the watched event
2 includes at least one of a processor exception, a program under test error, reaching a
3 breakpoint in the program under test; reaching a watchpoint in the program under test;
4 reaching a catchpoint in the program under test; and reaching a tracepoint in the
5 program under test.

1 32. The computer readable medium of claim 25 further comprising program
2 instructions operable to implement each of
3 selecting a platform-specific debugger corresponding to a processor in the unit
4 under test; and
5 loading the platform-specific debugger into the unit under test.

1 33. The computer readable medium of claim 25 further comprising program
2 instructions operable to implement:
3 loading, into the unit under test, a symbol file corresponding to the program
4 under test.

1 34. An apparatus comprising:
2 a means for causing a means for debugging a program under test to be loaded
3 into a unit under test, wherein the unit under test includes the program
4 under test;
5 a means for sending a plurality of test commands to the unit under test
6 according to a test script; and
7 a means for activating the means for debugging when a watched event occurs
8 during execution of the program under test.

1 35. The apparatus of claim 34 further comprising:
2 a means for directing an instruction to the means for debugging a program
3 under test; and

4 a means for recording information provided by the means for debugging a
5 program under test.

1 36. The apparatus of claim 34 further comprising:
2 a means for pausing execution of the program under test; and
3 a means for allowing a user to control the means for debugging a program
4 under test.

1 37. The apparatus of claim 34 further comprising:
2 a means for instructing the means for debugging a program under test to
3 associate itself with a process executing on the unit under test, wherein
4 the process corresponds to the program under test.

1 38. The apparatus of claim 34 further comprising:
2 a means for sending a command to the means for debugging a program under
3 test , wherein the command performs at least one of :
4 setting a breakpoint in the program under test;
5 setting a watchpoint in the program under test;
6 setting a catchpoint in the program under test;
7 setting a tracepoint in the program under test;

1 39. The apparatus of claim 34 wherein the watched event includes at least one
2 of a processor exception, a program under test error, reaching a breakpoint in the
3 program under test; reaching a watchpoint in the program under test; reaching a
4 catchpoint in the program under test; and reaching a tracepoint in the program under
5 test.